

Community News

Government, contractor employees join forces, share joy of engineering

By Mae Mangieri

This month, JSC celebrated seven years of observing National Engineers Week when some 200 civil service and contractor employees visited elementary and middle school classrooms to encourage students to pursue careers in engineering, science, math and technology as part of a national outreach program called Discover "E" ("E" for Engineering).

The volunteers shared their unique space-related knowledge with students and teachers as part of JSC's commitment to the local educational community.

"My goal is to demonstrate to students that the science and math concepts they study at school are used at NASA every day," said Tracy Minish of United Space Alliance. "Students are especially interested in everyday aspects of living in space, and ask a lot of 'what if' questions that deal with problem solving."

More than 200 civil service and contractor employees had the opportunity to participate in National Engineers Week through an on-going educational partnership between JSC and companies such as Barrios Technology, The Boeing Company, Hernandez Engineering, Lockheed Martin and United Space Alliance.

Since JSC began the National Engineers Week contractor partnership in 1996, there has been a 43 percent increase in the number of contractor volunteers visiting classrooms. Classroom visits were arranged through JSC's Education Outreach Program in response to teachers' requests.

"What better way to send your most talented employees into the classroom to share their knowledge with children," said Wendy Starr from Boeing's Community Relations Office. "It takes proactive companies to make a difference in our community and Boeing is one of them."

Many volunteers visited more than one classroom at their assigned school in an effort to reach as many students as possible. NASA Flight Director Rob Kelso visited a combination of three classrooms at Simms Elementary School in the LaMarque Independent School District.

"Mr. Kelso went the extra mile to give a presentation to all of our fourth grade students, wrote Simms Elementary School teacher Jan Scanlon. "Many of our students don't have the opportunity to interact with people outside of our immediate community, and for a NASA employee to spend time at our school is encouraging to the students. When he told them he also attended school in La Marque, they connected with him immediately."

During their classroom presentations, volunteers engaged students by using a variety of hands-on experiments and visual props like space suit items, food, Apollo lunar boots and gloves, and space shuttle tiles.

"The most exciting part of the day was when the students were allowed to get close and touch the space hardware," wrote Cinda Chullen, technical manager for the Science, Engineering, Analysis and Test contract for the Engineering Directorate.

The student's favorite activity was a simple experiment Chullen ran to teach the students how liquid cooling ventilation garments protect astronauts from overheating while wearing their space suits.

"I started out talking about temperature and quizzing them on how hot it might get in space when an astronaut puts on their space suit and goes out into space. They had a lot of fun guessing how hot it might get. Then, I ran an experiment whereby tubing was placed around a volunteer-student's arm and then I siphoned ice cold water through the tube from an ice chest. I explained that the coolness felt in the arm is how an astronaut would feel coolness wearing the LCVG and protecting themselves from the heat of space. They all wanted to try the experiment, however there just wasn't enough time."

In all, JSC volunteers interacted with more than 17,000 students at 115 different schools in the local educational community, and thank-



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Photos by Steve Candler, Cinda Chullen

Above: Cinda Chullen, technical manager for the Science, Engineering, Analysis and Test contract for the Engineering Directorate, demonstrates the various components of space suits to students at College Park Elementary School in the La Porte Independent School District. Left: NASA Flight Director Rob Kelso gives his National Engineers Week presentation to students at Simms Elementary School in the LaMarque Independent School District. Below: Simms Elementary School teacher Jan Scanlon shows her students a space suit glove brought to the classroom by visiting engineer Kelso. For more information or to volunteer, employees may call Mae Mangieri at x32929.



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you letters are pouring in from teachers. "The students were obviously interested in what Betsy had to say," wrote Jonica Mangieri, a fifth grade teacher at Hughes Road Elementary School in Dickinson, about Betsy Kluksdahl of JSC. "When she invited them to ask questions, almost every question showed their comprehension and curiosity about the subject."

National Engineers Week is an annual event to increase public awareness and appreciation of engineers and their work. More than 3 million engineers, teachers, and students participated nationwide.

JSC's Education Outreach Program provides volunteers for local schools year round, and new volunteers are always needed. As a vol-

unteer, employees can help educators inspire students by participating as guest speakers, career day speakers, science fair judges, tutors and mentors. Time spent participating in an approved event is official duty time, and with supervisory approval civil service employees may charge their volunteer time to a special education labor code.

JSC Safety Alert

Excessive Use of Hydraulic Elevators

What Happened

Recently, there have been at least two incidents at JSC in which hydraulic elevators failed while raising or lowering equipment. The most recent of these involved Elevator No. 5 at the Sonny Carter Training Facility on Oct. 24 and 25. This event involved the moving of a large amount of equipment in the elevator during a motion picture filming activity at the SCTF. The heavy loads coupled with the extensive transporting activity resulted in the overheating of the hydraulic system. On both occasions, people were stuck in the elevator when it failed.

Safety Implications

Overloading an elevator or long continuous use of a hydraulic elevator may result in: (1) damage to the elevator; (2) damage to equipment or materials being transported; and (3) entrapment or injury to personnel.

What You Can Do

If you are planning an activity or have knowledge of an activity that may involve overloading or long continuous operations of a hydraulic elevator (typically three stories or less), consult with the facility manager of the building where the elevator is located and provide him/her with all pertinent information on the activity. Never overload the elevator. Know the weight of your load for each operation of a hydraulic elevator. Look for the elevator's capacity posted inside the elevator and if your load exceeds the elevator's capacity, get approval from JJ14/ Michael Scott (33206) before using the elevator.

If you are the facility manager, be aware that excessive elevator use in your facility can cause a hazard. Consult with JJ14/Mike Scott on planned activities involving excessive use or overloading of the elevator.

For additional information, contact John Stanford/NA3 at x31347.
<http://www4.jsc.nasa.gov/safety/alert/>

Good Earth Day fest won't be hard to find

By Sandy Parker

Planning is under way for JSC's annual Earth Day celebration, scheduled for Friday, April 17, at the Gilruth Center.

This year's theme is, "A Good Planet is Hard to Find." In addition to the numerous exhibits by local organizations and environmental agencies, many new activities are in the planning stages, including a children's program presented by the child care center, a scavenger hunt and local science fair exhibits.

United Space Alliance is partnering with JSC to promote JSC/USA "Recycles Day" on Wednesday, April 22. Employees are encouraged to use this day as an office "spring cleaning" and to recycle excess paper, cardboard and possibly overhead transparencies.

Once again, coloring pages will be available for employees' children, and the popular photography contest will be open to all JSC civil service and contractor employees. All entries will be displayed at the event. Prizes will be provided for each col-

oring page and awarded for the best photos.

JSC also will host the Federal Executive Board fun run planned for April 18. Watch for the details, rules and registration form on the Earth Day home page by early March.

Free prizes, give-aways and astronaut autographs once again will be available. Some of the exhibitors will include the Sierra Club, the Galveston Bay Estuary Program, Government Services Administration, Army Corps of Engineers and the Environmental Protection Agency, to name a few.

This year, information booth experts will be available to answer questions about recycling, composting, gardening, and attracting birds and butterflies to your yard.

Employees who would like to volunteer for the Earth Day Planning Committee or would like information regarding the fun run, should contact Jo Kines at x33218. Employees who would like to volunteer to help with the many Earth Day activities should contact Bob Gaffney at x34249.